REMARKS

The Examiner is thanked for the performance of a thorough search.

Claims 1-3, 14-20, 22-23, 39-41, 48-61, and 63-69 have been amended. No claims have been canceled or added. Hence, Claims 1-6, 13-20, 22-25, 39-44, 48-61, and 63-69 are pending in the present application.

Each issue raised in the Office Action mailed November 13, 2008 is addressed hereinafter

I. REJECTIONS UNDER 35 U.S.C § 101

The Office Action rejected Claims 39-41, 48-61, and 63-69 under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Specifically, by citing to paragraph [0057] of the specification, the Office Action asserts that this paragraph describes volatile and non-volatile media as forms of energy. This assertion is incorrect.

Each of Claims 39-41, 48-61, and 63-69 features a "computer-readable volatile or non-volatile medium storing one or more sequences of instructions…". It is respectfully submitted that as expressly described in the specification, volatile and non-volatile media are not non-statutory forms of energy as asserted in the Office Action.

For example, paragraph [0057] of the specification describes that a computer-readable medium "… may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media." This passage of paragraph [0057] makes it abundantly clear that volatile and non-volatile media are different than transmission media. Further, paragraph [0057] describes that non-volatile media includes, for example, optical or magnetic disks, and volatile media includes dynamic memory. On the other hand, paragraph [0057] describes that transmission media includes coaxial cables and fiber optics, and may also take the form of

acoustic or light-waves. Thus, this passage of paragraph [0057] also makes it abundantly clear that transmission media is different than volatile and non-volatile media.

For the foregoing reasons, the volatile and non-volatile media featured in Claims 39-41, 48-61, and 63-69 are clearly directed to articles of manufacture, and for at least this reason it is respectfully submitted that each of Claims 39-41, 48-61, and 63-69 is directed to statutory subject matter. Reconsideration and withdrawal of the rejections of Claims 39-41, 48-61, and 63-69 under 35 U.S.C. § 101 is respectfully requested.

II. ISSUES RELATING TO THE CITED ART

A. INDEPENDENT CLAIM 1

The Office Action rejected Claim 1 under 35 U.S.C. § 103(a) as allegedly unpatentable over Fry, U.S. Patent Application Publication No. US 2003/0159112 ("FRY") in view of Chu et al., U.S. Patent Application Publication No. US 2005/0039124 ("CHU"). The rejection is respectfully traversed.

Among other features, Claim 1 comprises the features of:

> **after an XML processor**, which is configured to send validated XML data to an application, **starts performing a validation operation on an XML-based input stream, and before said XML processor completes performing said validation operation** on said XML-based input stream, performing the steps of:
> **after starting to validate a particular XML element** in said XML-based input stream, **and before completion of validating said particular XML element** in said XML-based input stream, performing the computer-implemented step of **said XML processor receiving one or more requests for particular information relating to said validation operation**, wherein said one or more requests include at least one of: …;
> said XML processor generating one or more messages that include said particular information; and
> said XML processor responding to said one or more requests for said particular information by providing said one or more messages.

Thus, in Claim 1 an XML processor receives one or more requests for particular information

relating to said validation operation **after** the XML processor starts to validate a particular XML element **and before** the XML processor completes validating the particular XML element. Further, Claim 1 recites that, **after** the XML processor starts performing a validation operation on the XML-based input stream that includes the particular XML element and **before** the XML processor completes performing the validation operation on the XML-based input stream, the XML processor performs the steps of: (1) receiving one or more requests for particular information relating to the validation operation; (2) generating one or more messages that include said particular information; and (3) responding to said one or more requests for said particular information by providing said one or more messages. It is respectfully submitted that the above features of Claim 1 are not described or suggested by FRY and CHU.

The Office Action seems to assert that CHU describes the feature of Claim 1 of: after starting to validate a particular XML element in said XML-based input stream, and before completion of validating said particular XML element in said XML-based input stream, performing the computer-implemented step of said XML processor receiving one or more requests for particular information relating to said validation operation. This assertion is incorrect.

CHU describes a parser that can validate an XML document against different syntax levels of a schema. (See CHU, paragraph [0026].) Specifically, CHU describes that an input XML document is validated according to a first syntax level, while output is generated from the input XML document according to a second syntax level. The first and second syntax levels are defined using schemas, where the schema that defines the first syntax level is an extension of the schema that defines the second syntax level. (See CHU, paragraph [0027].) In other words,

CHU describes a parser that can validate an XML document against a first schema and generate output that conforms to a different, second schema.

Significantly, however, CHU does not describe or even suggest that the selection of the second, output schema is done by the parser while the validation operation is being carried out. In fact, CHU expressly describes that the selection of the output schema is necessarily made **before** the validation and the parsing of the input XML document begins. For example, in paragraph [0046], lines 1-6, CHU expressly states that, first, a consumer application specifies its desired abstraction level to an event-based XML parser, and then the XML parser generates events at the selected abstraction level. In another example, with respect to Fig. 11, in paragraphs [0051]-[0053] CHU expressly states the parser receives instructions (reference numeral 1130 in Fig. 11) identifying the output schema (reference numeral 1132 in Fig. 11) **well before** any parsing and validation of the input XML document is started (as indicated by reference numeral 1140 in Fig. 11).

In contrast, Claim 1 features an XML processor that receives one or more requests for particular information relating to said validation operation **after** the XML processor **starts to validate** a particular XML element **and before** the XML processor **completes validating** the particular XML element. It is respectfully submitted that CHU does not, and cannot possibly, describe this feature of Claim 1 because CHU's XML parser necessarily must know the output schema before starting to parse and validate an XML document; otherwise, if an output schema is specified during the parsing or validating operation, one part of the input XML document would be outputted according to one schema and another part of the XML document would be outputted according to another schema, which would be clearly erroneous from the perspective of any application that receives the output.

The rejection of Claim 1 in the Office Action seems to rely for support exclusively on the use of the term "while" in paragraphs [0027]-[0030] of CHU. It is noted, however, that neither these paragraphs nor any other passages of CHU describe or suggest that an XML parser is capable of receiving requests for information while the parser is validating an XML document. For example, in paragraph [0027], CHU describes "…techniques for casting objects, such that an input is validated according to a first syntax level while output is generated, from the input, according to a second syntax level." Thus, while this paragraph of CHU may be describing that input may be validated while output is generated, this paragraph does not describe or even suggest that any requests for information about the validation operation are received during the validating. In another example, in paragraph [0028], CHU describes that

> … a validating parser is used to validate an input document expressed as an object markup definition **while** the validating parser is also used to apply abstraction to the object markup definition when generating an output object, responsive to the validating. In this aspect, the validation is preferably performed according to a syntax level which allows the object markup definition to be successfully validated, **while** the application of abstraction preferably generates the output object according to a different syntax level which would not allow the object markup definition to be successfully validated. This different syntax level is preferably requested by an application program that will consume the generated output object.

Thus, the use of the term "while" in this paragraph of CHU also does not describe or even suggest that any requests for information about the validation operation are received during the validating.

Further, Claim 1 recites that, **after** the XML processor starts performing a validation operation on the XML-based input stream and **before** the XML processor completes performing said validation operation on said XML-based input stream, the XML processor performs at least the step of … receiving one or more requests for particular information

relating to the validation operation. The Office Action asserts that FRY describes this feature of Claim 1 in paragraphs [0022]-[0027]. This assertion is incorrect.

In general, FRY describes a streaming XML parser that is capable of instantiating an API that is appropriate for the XML document being parsed and the receiving application. (See FRY, paragraph [0016].) The APIs that can be instantiated are: (1) streaming parser API that does not validate; (2) streaming parser API that does not validate, but which can read information for the XML document being validated from a DTD or an XML schema; and (3) streaming parser API that can validate an XML document against a DTD or an XML schema. (See FRY, paragraph [0017].)

Significantly, however, FRY does not describe that any of the parser API's are operable to receive requests **after starting to perform** a validation operation on an XML document and **before completing** the performance of the validation operation. In fact, the only description of a validation parsing operation is provided in paragraph [0023] of FRY as follows:

> For non-validating parsing, a parser can be provided that can read the DTD and process its information to use during parsing. **For validating parsing, a validating parser can be provided that reads in a schema or DTD and uses this to validate the XML document. This validation can be streaming, such that it does not require the entire document to be loaded at one time.** (Emphasis added.)

The above passage of FRY describes a validating parser that can read a schema or a DTD and use it to validate an XML document in a streaming fashion that does not require the entire document to be loaded at one time. However, this passage of FRY does not describe that the validating parser is operable to receive requests for information about a validation operation after starting and before completing the validation operation.

In contrast, Claim 1 includes the feature of an XML processor performing at least the step of … receiving one or more requests for particular information relating to the validation

operation **after** the XML processor starts performing a validation operation on the XML-based input stream and **before** the XML processor completes performing the validation operation on the XML-based input stream.

For the foregoing reasons, FRY and CHU do not describe or suggest all features of Claim 1. Thus, Claim 1 is patentable under 35 U.S.C. § 103(a) over FRY in view of CHU. Reconsideration and withdrawal of the rejection of Claim 1 is respectfully requested.

B. INDEPENDENT CLAIM 39

The Office Action rejected Claim 39 under 35 U.S.C. § 103(a) as allegedly unpatentable over FRY in view of CHU.

Claim 39 includes features similar to the features of Claim 1 discussed above. Thus, Claim 39 is patentable under 35 U.S.C. § 103(a) over FRY in view of CHU for at least the reasons given above with respect to Claim 1.

In addition, Claim 39 comprises the feature of:

> **a validator** comprising **a state machine** that **receives and responds to requests for particular information** associated with a first element in said XML-based input stream, **after starting to validate** said first element **and before completion of validating** said first element.

It is respectfully submitted that FRY and CHU do not describe or suggest the above feature of Claim 39.

In rejecting Claim 39, the Office Action makes a very general assertion that FRY and CHU describe a validator that comprises a state machine. However, the Office Action does not provide any citation to FRY or CHU and does not provide any other reasoning about why FRY or CHU describe or suggest a validator that comprises a state machine.

It is respectfully submitted that FRY and CHU do not even recite the term "state machine"! Thus, for at least this reason FRY and CHU do not, and cannot possibly, describe or

suggest the feature of Claim 1 of a validator that comprises a state machine that receives and responds to requests for particular information associated with a first element in said XML-based input stream, after starting to validate said first element and before completion of validating said first element.

For the foregoing reasons, FRY and CHU do not describe or suggest all features of Claim 39. Thus, Claim 39 is patentable under 35 U.S.C. § 103(a) over FRY in view of CHU. Reconsideration and withdrawal of the rejection of Claim 39 is respectfully requested.

C. INDEPENDENT CLAIM 48

The Office Action rejected Claim 48 under 35 U.S.C. § 103(a) as allegedly unpatentable over FRY in view of CHU.

Claim 48 includes features similar to the features of Claim 1, except in the context of a computer-readable volatile or non-volatile medium. Thus, Claim 48 is patentable under 35 U.S.C. § 103(a) over FRY in view of CHU for at least the reasons given above with respect to Claim 1. For this reason, reconsideration and withdrawal of the rejection of Claim 48 is respectfully requested.

D. DEPENDENT CLAIMS 2-6, 13-20, 22-25, 40-44, 49-61, AND 63-69

Claims 2-6, 13-20, 22-25, 40-44, 49-61, and 63-69 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over FRY in view of CHU.

Each of Claims 2-6, 13-20, 22-25, 40-44, 49-61, and 63-69 depends from one of independent Claims 1, 39, and 48 and thus includes each and every feature of the independent base claim. Thus, each of Claims 2-6, 13-20, 22-25, 40-44, 49-61, and 63-69 is allowable for the reasons given above for Claims 1, 39, and 48. In addition, each of Claims 2-6, 13-20, 22-25, 40-44, 49-61, and 63-69 introduces one or more additional features that independently

render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those features is not included at this time. Therefore, it is respectfully submitted that Claims 2-6, 13-20, 22-25, 40-44, 49-61, and 63-69 are allowable for the reasons given above with respect to Claims 1, 39, and 48. Reconsideration and withdrawal of the rejections of Claims 2-6, 13-20, 22-25, 40-44, 49-61, and 63-69 is respectfully requested.

III. CONCLUSION

The Applicants believe that all issues raised in the Office Action have been addressed. Further, for the reasons set forth above, the Applicants respectfully submit that allowance of the pending claims is appropriate. Reconsideration of the present application is respectfully requested in light of the remarks herein.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
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